

## WHAT IS CLAIMED IS:

1. A plant-growing apparatus comprising:

5 (a) a plurality of rotatable plant-growing modules, each said module comprising a cylindrical structure for holding plant-growing containers, such that said plants grow in said containers radially inwardly of said cylindrical structure toward a light source inside said cylindrical structure and roots of said plants grow radially outwardly of said cylindrical structures;

10 (b) module support means for supporting each said module and for rotating each said module about its longitudinal axis in a substantially horizontal position;

15 (c) module moving means for conveying said module support means and modules along a path between two separated positions; and

20 (d) water-feeding means for feeding water to said plants.

2. An apparatus according to claim 1 wherein said two separated positions are a vertically higher position and a vertically lower position.

25

3. An apparatus according to claim 1 wherein said two separated positions are two horizontally separated positions.

4. An apparatus according to claim 2 wherein said water feeding means is a trough in which said plant-growing containers are brought into contact with water at said vertically lower position.
5. An apparatus according to claim 1 wherein said water feeding means is a trough supported on said module support means for watering said plants as said module rotates.
6. An apparatus according to claim 1 wherein said module moving means comprises a plurality of sprocket wheels and an endless chain.
7. An apparatus according to claim 1 wherein said module support means comprises a pair of spaced-apart rotatable members.
8. An apparatus according to claim 7 wherein said cylindrical structures have rims adapted to engage said rotatable members.
9. A method of growing plants comprising the steps of:
  - (a) placing plant material in a growing medium;
  - (b) placing said medium in a rotatable growing apparatus such that plants grow radially inwardly of said apparatus toward a light;
  - (c) illuminating a light source in said rotatable growing apparatus;
  - (d) rotating said rotatable growing apparatus about said light source;

- 14 -

- (e) moving said rotatable growing apparatus along a path between two separated positions; and
- (f) delivering water to said growing medium.

5

- 10. A method according to claim 9 wherein said two separated positions are a vertically higher position and a vertically lower position.
- 10 11. A method according to claim 9 wherein said two separated positions are two horizontally separated positions.